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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/807,468	04/11/2001	Hideki Fujii	52433/639	7679
26646	7590	03/25/2004	EXAMINER	
KENYON & KENYON ONE BROADWAY NEW YORK, NY 10004			WYSZOMIERSKI, GEORGE P.	
			ART UNIT	PAPER NUMBER
			1742	
DATE MAILED: 03/25/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/807,468

Applicant(s)

MURAYAMA ET AL.

Examiner

George P Wyszomierski

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ed

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12/15/03 (RCE, Amendment).
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3 and 28-43 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3 and 28-41 is/are rejected.
- 7) ☒ Claim(s) 42 and 43 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>20030325</u> | 6) <input type="checkbox"/> Other: _____ |

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1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 3, and 28-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over European Patent 466606 with Kuroda et al. (U.S. Patent 4,991,499) used as a teaching reference, in view of either Shida et al. or Meredith et al.

The EP '606 reference discloses seam welded tubes which may be of a size as recited in the instant claims, and made of a titanium alloy. The tubes and methods described in the EP '606 reference employ an alloy containing an amount of platinum group metals as recited in instant claims 3, 29, 31 and 33. It is unclear from EP '606 whether or not the prior art alloys are alpha+beta alloys. Note that Kuroda column 1, lines 16-22 states that "The $\alpha+\beta$ -type titanium alloys include... Ti-3Al-2.5V, Ti-6Al-4V...and the like such as small amount of platinum group elements added alloys and platinum group elements plus small amount of Ni, Co, W, Mo added alloys." [emphasis added]. The underlined portion indicates that the alloys as disclosed in the '606 reference are alpha+beta alloys, much like the alloys employed in the presently claimed invention. The '606 tubes are made by cold forming a strip followed by a welding step to form the strip into a tube, which may include plasma welding and/or TIG arc welding (see EP '606 pages 5-7). Page 5 of the '606 reference further discloses a step as recited in instant claim 41.

The EP '606 reference does not specify that the ratio of the minimum to maximum wall thickness of the '606 tubes is between 0.95-0.99, as required by the instant claims, and the alloys disclosed therein do not contain aluminum. However:

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a) Clearly one of ordinary skill in the pipe-making art wants to produce as uniformly sized of a tube as possible. The examiner's position is that performing a specific set of process steps upon a given titanium alloy material would result in a product having substantially the same physical shape in either the '606 disclosure or in the present invention.

b) Both Shida et al. and Meredith indicate that it is conventional in the art to employ either a Ti-6Al-4V or a Ti-3Al-2.5V ($\alpha + \beta$) alloy in the seam welded pipe making art (see Meredith column 3, lines 29-31 or Shida Table 1, particularly examples 59-61 therein). The Shida alloys further employ the platinum group metals as done by EP '606 and as recited in present claims 3, 29, 31, and 33. Because EP '606, Shida and Meredith are all seeking to produce highly corrosion resistant seam welded pipes, it would have been an obvious expedient for one of ordinary skill in the art to utilize an alloy composition as recited in the Shida et al. or Meredith et al. patents in the tubes and methods as described by EP '606.

3. In the papers filed with the Request for Continued Examination (RCE) on December 15, 2003, Applicant alleges that the claimed invention can be distinguished from the prior art in that the material used in the '606 reference is not equivalent to the presently claimed $\alpha + \beta$ material, that the Shida and Meredith references do not disclose the pipe forming methods as presently claimed, and/or that the present specification suggests some distinction exists between the claimed invention and the prior art with regard to properties, e.g. ductility, formability, tensile strength. Applicant's arguments have been carefully considered, but are not persuasive of patentability because:

a) Applicant appears to base the argument that the '606 material is not $\alpha + \beta$ on the disclosure in '606 of certain precipitates in the material. However, it is not seen how the presence of a given precipitate in the material would overall affect the microstructure of the

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matrix portion of the material, whether alpha or alpha+beta. Based on the Kuroda disclosure, the examiner's position is that the '606 material appears to be alpha+beta.

b) With regard to Shida and Meredith, these references are applied largely for their teachings of the use of certain alloying elements (e.g. aluminum and vanadium) in titanium alloys to be formed into pipe materials. All pipe-related limitations in the instant claims (e.g. cold forming, welding, etc) are disclosed by EP '606 or, as stated in the rejection supra, do not patentably define over the '606 reference (e.g. min/max thickness ratio).

c) No particular values for any mechanical properties are stated or implied in the instant claims.

4. Claims 42 and 43 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to George Wyszomierski whose telephone number is (571) 272-1252. The examiner can normally be reached on Monday thru Friday from 8:00 a.m. to 4:30 p.m. Eastern time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King, can be reached on (571) 272-1244. Effective October 1, 2003, all patent application related correspondence transmitted by facsimile must be directed to the central facsimile number, (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



GEORGE WYSZOMIERSKI
PRIMARY EXAMINER

GPW
March 17, 2004